TCF Professional Seminars

Friday, April 21, 2006

The College of New Jersey, Ewing Township, New Jersey

Development Track

DREW UNIVERSITY

Fast and Easy Web Development using Ruby on Rails

Presented by Barry Burd
Professor of Mathematics and Computer Science, Drew University

Barry Burd is a professor in the Department of Mathematics and Computer Science at Drew University in Madison, New Jersey. When he's not lecturing at Drew University, Dr. Burd leads training courses for professional programmers in business and industry. He has lectured at conferences in America, Europe, Australia and Asia. He is the author of several articles and books, including “Java 2 For Dummies” and “Eclipse For Dummies,” both published by Wiley.

Ruby on Rails is a ground-breaking platform for creating powerful, dynamic Web sites. With Ruby on Rails, you can create a Web interface to a remote database in minutes. Developing a complex project takes a fraction of the time it would take with more traditional programming languages. This seminar introduces Ruby on Rails, and provides examples of some interesting Web sites that you can quickly create.

Development Track

Use Cases Tutorial

Presented by Dennis Mancl
Distinguished Member of Technical Staff, Lucent Technologies - Bell Labs

Dennis Mancl is a Distinguished Member of Technical Staff with Lucent Technologies - Bell Labs. He has been doing training and consulting on object oriented programming and design for 16 years, and he has done use cases coaching since 1998. Mr. Mancl is currently the Chair of the Princeton Chapter of the Association for Computing Machinery (ACM).

Software developers need a good way to write clear and concise requirements, without spending a lot of time and effort. In the world of software development, the technique of writing Use Cases becoming a popular way to analyze and document software requirements. In use case modeling, each major piece of user-visible behavior is described in a scenario-based format. The advantages of use cases over other requirements documentation approaches: the use cases are more compact, better organized, more clearly linked to specific user needs, and easier to evolve as user needs are changing. This talk will be a hands-on tutorial showing the techniques to employ use cases for modeling a wide variety of software systems.

Development Track

ExxonMobil

Applying the Decorator Design Pattern
Presented by Michael P. Redlich
Senior Research Technician, ExxonMobil Research & Engineering Co.

Michael P. Redlich is a Senior Research Technician (formerly a Systems Analyst) at ExxonMobil Research & Engineering, Co. in Clinton, New Jersey with extensive experience in developing custom web and scientific laboratory applications. Mike also has experience as a Technical Support Engineer for Ai-Logix, Inc. where he developed computer telephony applications. As a member of the Amateur Computer Group of New Jersey (ACGNJ), he dedicates much of his free time facilitating the monthly ACGNJ Java Users Group and serving as ACGNJ Secretary. He has a Bachelor of Science in Computer Science from Rutgers University. Mike's computing experience includes computer security, relational database design and development, object-oriented design and analysis, C/C++, Java, Visual Basic, FORTRAN, Pascal, MATLAB, HTML, XML, ASP, VBScript, and JavaScript in both the PC and UNIX environments.

Design patterns are recurring solutions to software design problems that are found again and again in real-world application development. Design patterns are about design and interaction of objects, as well as providing a communication platform concerning elegant, reusable solutions to commonly encountered programming challenges. The most widely recognized book on design patterns, Design Patterns – Elements of Reusable Object-Oriented Software, written by Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides, affectionately known as the "Gang-of-Four" (GoF), defined 23 design patterns and classified them into three categories: creational (abstracts the instantiation process), structural (groups objects into larger structures), and behavioral (defines better communication among objects).

The Decorator design pattern attaches additional responsibilities to an object dynamically and provides a flexible alternative to subclassing for extending functionality. This seminar will be a review of the Decorator design pattern, found in the structural category, and will demonstrate how and when to implement it within your applications.

Development Track

ExxonMobil

Applying the Factory Method Design Pattern
Presented by Michael P. Redlich
Senior Research Technician, ExxonMobil Research & Engineering Co.

Michael P. Redlich is a Senior Research Technician (formerly a Systems Analyst) at ExxonMobil Research & Engineering, Co. in Clinton, New Jersey with extensive experience in developing custom web and scientific laboratory applications. Mike also has experience as a Technical Support Engineer for Ai-Logix, Inc. where he developed computer telephony applications. As a member of the Amateur Computer Group of New Jersey (ACGNJ), he dedicates much of his free time facilitating the monthly ACGNJ Java Users Group and serving as ACGNJ Secretary. He has a Bachelor of Science in Computer Science from Rutgers University. Mike's computing experience includes computer security, relational database design and development, object-oriented design and analysis, C/C++, Java, Visual Basic, FORTRAN, Pascal, MATLAB, HTML, XML, ASP, VBScript, and JavaScript in both the PC and UNIX environments.

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The Factory Method design pattern defines an interface for creating an object, but lets subclasses decide which class to instantiate. This seminar will be a review of the Factory Method design pattern, found in the creational category, and will demonstrate how and when to implement it within your applications.

Development Track

ExxonMobil

Applying the Observer Design Pattern
Presented by Michael P. Redlich
Senior Research Technician, ExxonMobil Research & Engineering Co.

Michael P. Redlich is a Senior Research Technician (formerly a Systems Analyst) at ExxonMobil Research & Engineering, Co. in Clinton, New Jersey with extensive experience in developing custom web and scientific laboratory applications. Mike also has experience as a Technical Support Engineer for Ai-Logix, Inc. where he developed computer telephony applications. As a member of the Amateur Computer Group of New Jersey (ACGNJ), he dedicates much of his free time facilitating the monthly ACGNJ Java Users Group and serving as ACGNJ Secretary. He has a Bachelor of Science in Computer Science from Rutgers University. Mike's computing experience includes computer security, relational database design and development, object-oriented design and analysis, C/C++, Java, Visual Basic, FORTRAN, Pascal, MATLAB, HTML, XML, ASP, VBScript, and JavaScript in both the PC and UNIX environments.

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The Observer design pattern defines a one-to-many dependency among objects so that when one object changes state, all of its dependents are notified and updated automatically. This seminar will be a review of the Observer design pattern, found in the behavioral category, and will demonstrate how and when to implement it within your applications.

Development Track

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Introduction to Windows Workflow Foundation
Presented by Paul Blackwell
Senior Developer, Omicron Consulting

Paul Blackwell is a senior architect and developer for Omicron Consulting. In his current position Mr. Blackwell is responsible for the development of .NET based data-driven distributed solutions for fortune 1000 customers. Mr. Blackwell has over 22 years experience in programming and project management.

As systems become more distributed, the requirement to coordinate actions with workflow becomes more prominent. To address this need, Microsoft is building workflow capabilities into the WinFX framework libraries. This set of framework classes is called the Windows Workflow Foundation (WWF), and is coming in the Windows Vista release cycle. This session will cover the basics of using WWF and introduce WWF's visual designer and visual debugging. A typical workflow will be analyzed and programmed from start to finish.

Development Track

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Visual Studio and SQL Server 2005—Reporting
Presented by Paul Blackwell
Senior Developer, Omicron Consulting

Paul Blackwell is a senior architect and developer for Omicron Consulting. In his current position Mr. Blackwell is responsible for the development of .NET based data-driven distributed solutions for fortune 1000 customers. Mr. Blackwell has over 22 years experience in programming and project management.

This session walks you through a series of live code examples that illustrate how to leverage the new Visual Studio and SQL Server 2005 RDL-based reporting features. We'll see how to create a new report from scratch and how to import a report created with SQL Server Reporting Services. We'll set up a report-specific data source, capture user parameters to focus the report data, capture multiple-select parameters, pass parameters to the queries and execute stored procedures to return data for the report. We'll build table, matrix and chart reports and applications used to launch the reports. We'll show how to deploy the reports and implement (fake) some of the features you'll only find on Reporting Services. We'll also look at the new SQL Server 2005 Reporting Services features that can leverage this same technology as implemented in SQL Server Express and other editions. When you're done you'll have a better understanding of the differences between the Visual Studio 2005 and SQL Server 2005 Reporting Services implementations.

Technology Track

Intel's Technology Roadmap
Presented by David M. McGurl
Intel Corporation

David McGurl is a 22 year veteran of Intel Corporation with roles spanning across Software Engineering, Network & Application Designs. Currently Mr. McGurl is managing the Channel Solutions Accounts in the region.

Intel® delivers integrated platforms that greatly enhance the value of technology. Join us to discover differentiating technology up close. We will shed light on some of the Intel® technologies that sets the standard for platform performance and leadership in new generations of products. Hear how new platform technologies, Multicore processors, 64 bit computing & Virtualization Technology deliver end to end performance. Technologies that can help reduce cost, manage risk, and enhance the computing experience. Join us as we share our ideas about the role platforms can play in delivering added value, and our view of a future beyond the processor.

Technology Track

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Portals: The New Paradigm
Presented by David F. Soll
Vice President of Advanced Technology, Omicron Consulting

David F. Soll is the Vice President of Advanced Technology for Omicron Consulting. Mr. Soll has worked with computer technologies from hardware design, network design, operating system development, through application development and architecture design for more than 25 years. He is a Senior Member of the Institute of Electrical and Electronic Engineers (IEEE) and is also the Vice Chair of the Princeton Chapter of the IEEE Computer Society and the Vice Chair of the Princeton chapter of the Association for Computing Machinery (ACM). Mr. Soll received his BS in Electrical Engineering from Drexel University.

Portal technology has evolved over the past few years to the point where they are no longer simply collections and organizations of web pages but now provide an infrastructure to deliver n-tier architecture applications to the desktop via web browsers. The evolving portal technologies combined with Service Oriented Architecture (SOA) is creating a new paradigm for not only delivering new applications but an infrastructure for integrating legacy applications and data. Mr. Soll will discuss this new paradigm and show specifically how Microsoft's SharePoint technologies allow for application and data integration.

Technology Track

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Eleven Prevalent Vulnerabilities in Web-Based Systems and How to Avoid Them

Presented by Devin Fensterheim
Rutgers University

Devin Fensterheim is an MCDBA and MCSA, and currently supervises development and database operations for Rutgers University Campus Information Services. His background in web development and security has been called upon to secure systems for several organizations.

Web-based information systems have become increasingly common as a means of information management. The variety of tools available for this purposes, such as Java and .NET, have simplified development of these systems; and, due in part to the emergence of Rapid Application Deployment and increased user acceptance, these systems have quickly become ubiquitous. However, the platform inherently lends itself to a unique collection of security vulnerabilities, regardless of the backend technologies used (JSP, ASP .NET, PHP, etc.). This seminar will address some of the most prevalent and damaging vulnerabilities of particular significance to web-based development. Both well-known attack vectors such as cross-site scripting and SQL injection, as well as more abstract vulnerabilities such as common weaknesses in encryption and authentication will be presented. The methodology of attack will also be discussed; however, the primary focus is the theory behind these weaknesses and means of defense available to developers and project managers.

Technology Track

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SQL Server 2005 & Business Intelligence: Extreme Data Makeover Edition
Presented by Nathan Berk
Omicron Consulting

Business Intelligence/SQL Server ’05 – Microsoft’s SQL Server 2005 and their development platform Visual Studio enable companies with the ability to implement Business Solutions without significant investments in licensing best of breed technologies coupled with expensive implementations. This event will describe the advances in Microsoft’s newest release of their SQL Server Database, how it can be leveraged to create powerful data driven solutions and discuss how Visual Studio is used to create these solutions. In addition, the concept of Business Intelligence (BI) will be presented discussing how BI transforms a company providing power information to all stake holders in a company creating a competitive advantage.

Technology Track

THOMSON

Performance Monitoring and Tuning of Web Based Systems
Presented by John Christopher
Technical Specialist, Thomson Scientific

John Christopher is a Technical Specialist at Thomson Scientific; he has been involved in the support of the web-based search systems which are used as reference materials in scientific and academic research libraries since 1998. He has a B.A. in Physics from Temple University and an Master of Software Engineering degree from Pennsylvania State University. He is a member of IEEE and ACM, and holds an IEEE CSDP certification.

This presentation will cover principles and practical techniques useful in discovering and correcting bottlenecks in web based systems. Bottlenecks and inefficiencies can be caused by hardware, software, and architectural limitations; the steps needed to detect where these limits occur in a system will be detailed, and possible corrective actions that can be taken to obtain best use of resources. The tools used to determine the state of a system include built-in operating facilities, open source software tools, and commercially available monitoring systems; the applicability and use of these tools will be examined.

Although the emphasis will be on Unix and Linux based systems, the techniques discussed are applicable to Windows based systems as well.

Technology Track

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SharePoint Products & Technologies
Presented by David F. Soll
Vice President of Advanced Technology, Omicron Consulting

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SharePoint is a collection of products and technologies from Microsoft designed to provide a portal infrastructure for web based applications. Mr. Soll will discuss the components that make up the SharePoint Products and Technologies and demonstrate many of the capabilities that SharePoint provides.

Technology Track

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Windows Vista – What's on the Horizon?

Presented by John Stawiarski
Director, Network Services, Omicron Consulting

Microsoft's new operating system is scheduled for release late in 2006. Is Windows Vista just another pretty face or has Microsoft really addressed those issues that enterprise desktop/laptop managers have been struggling with for years.

This seminar will demonstrate the recent beta release of Vista with the new features touted by Microsoft. It will discuss the new security features such as User Access Protection, Application Compatibility and new deployment methods. This seminar is geared towards desktop managers and administrators looking to understand what Vista brings to the enterprise.

As Director with Omicron Consulting, Mr. Stawiarski brings over 20 years of experience in Enterprise Management, Security Planning and Analysis, Networking Technologies, Distributed Computing, Application Development, and overall Project Management and Delivery. Starting his tenure with Omicron in 1992, Mr. Stawiarski has worked as a Support Technician, Network Consultant, Desktop Specialist, Strategic Project Manager and most recently as a the Director of Network Services. During this time Mr. Stawiarski has designed and architected extranet and infrastructure systems that are secure, manageable, and scalable. He has designed access processes for systems ranging from a few users to tens of thousands, all with the same integration and supportability.

Prior to joining Omicron, Mr. Stawiarski held positions as a Regional Manager at EPS, Technical Consultant for New Jersey Bell, and Technical Consultant at Liberty Mutual. John holds a Bachelors Degree in Computer Science and Business Management from Moravian College, a Microsoft MCSE, Cisco CCNP, and a variety of HP and IBM Certifications including: OpenView Storage Area Management, EVA Disk System Design, Data Protector, Enterprise Disk Array Design, HP Tape and Magneto Optical, HP 9000 Server Design and IBM P-Series Architecture.

Technology Track

The Mobile Device as the Next IT Platform
Presented by Ross Dennis
Research Director - Clearsight Research

Mr. Dennis has more than 10 years experience in conducting independent research in technology markets. He has held technology leadership and management positions with M&M Mars, International Paper and AT&T where he was manger for e-commerce projects and later a director for innovation and new technology programs. His first company developed a global engineering software application, which was acquired by Mitsubishi Engineering. He currently conducts technology market research for mobile content delivery infrastructure, spectrum and wireless broadband. He has a BS in Mathematics and an MBA from Rutgers.

Mobile devices now out number desktop PC's and are destined to be the next IT platform. IT and entertainment are converging on the mobile device. Companies are forming all along the mobile content value chain from creation, to content management to delivery and user experience. How the new mobile content delivery industry is emerging will be discussed. along with new methods being used to program the mobile platform in Java, Brew and xHTML and others. In addition to enterprise applications mobile content now includes: audio, video, sports highlights, music, advertising/promotion, games, ringtones, live TV, news and the ability to buy almost anything over wireless.

Rapidly increasing demand, huge numbers of different mobile devices and short times to market are creating challenges for innovative companies. Technical problems of authentication, billing, content transcoding and transaction processing and digital rights management are all now being addressed for the mobile device.

The mobile world is full of digital Darwinian variants. Specialties include live TV broadcast, mobile e-commerce, streaming media, advertising and a new category called place shifting in which applications and media on your PC can be shifted to your mobile device.

These topics and others as time permits will be presented. A Review of prominent vendors in mobile development will be given.

Management Track

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Digital Rights Management
Presented by Frederic M. Wilf
Lawyer, Morgan, Lewis & Bockius, LLP

Fred Wilf practices business, technology and intellectual property law with a focus on information technology and Internet-related issues. He is of counsel with Morgan, Lewis & Bockius LLP, where he is a member of the firm's Technology, Commercial and Outsourcing Transactions Practice Group.

Fred represents electronic commerce and "dot com" companies, computer software and hardware developers, vendors, consultants and publishers, as well as licensees and other users of technology. The companies he represents range in size from start-ups to Fortune 100 companies. He also serves as an arbitrator of business and technology-related disputes. Fred speaks and writes extensively on topics involving the Internet, computer technology, and the law. Fred may be reached at the firm's offices at 1701 Market Street, Philadelphia, PA 19103-2921, and online at fwilf@morganlewis.com. Morgan Lewis is a general practice law firm of 1,200 attorneys with offices around the world. The firm maintains a web site at http://www.morganlewis.com.

Digital rights management ("DRM") encompasses a broad range of technologies, an assortment of business methodologies, and a substantial number of legal rights and remedies, all with the primary goal of providing owners of digital content with the tools to control who has access to their content and how their content is used. This discussion will focus on the business and legal issues in digital rights management, including the fall-out from Sony BMG's use of "rootkit" technology on audio CDs.

Management Track

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Rights Management Service: Microsoft's Implementation of Digital Rights Management

Presented by John Stawiarski

Director, Network Services, Omicron Consulting

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Digital Rights Management provides the ability to store authorization information embedded within a document or email message is a new technology with developing standards. The technology implications are far-reaching. Today, enterprise organizations are asking whether or not they should dive into this evolving technology in the hopes of protecting sensitive information. How does this technology differ from more traditional technologies? What is the right need this technology answers?

This seminar will help you understand the technologies supporting Microsoft's version of Digital Rights Management, or better known as Rights Management Service (RMS), and the inter-dependencies on the infrastructure and data management process.

Management Track

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Real-Time Manufacturing Intelligence
Presented by John Matranga
Chief Technology Officer, Omicron Consulting

John Matranga is Chief Technology Officer of Omicron Consulting, Inc. as well as Managing Director of XMLabs, a division of Omicron. Mr. Matranga has overseen the development of major software applications for Fortune 500 companies. Mr. Matranga is the lead author of Understanding BizTalk, the first book released on the subject. He is a nationally recognized authority on technology and its effect on business processes. Generally considered one of the nation's leading authorities on XML, he is also co-author of BizTalk Unleashed. A sought-after speaker for business and technology audiences, he has also given numerous presentations on XML topics. In 2004, Mr. Matranga was selected by Microsoft as one of our nation's Top 100 Technology Architects. Mr. Matranga holds a Bachelor of Science Degree in Chemical Engineering from Lehigh University.

Currently some of the top investment priorities for manufacturing companies are in the area of real-time manufacturing intelligence and collaboration. At a time when companies are drowning with data overload, the portal platform offers a unifying medium that can bring new viability to the analytics of detailed business data and the increasing importance of real-time data for sound business decisions. Attend John's talk to see examples of how portal technology is being used in process industries around the world to delver applications such as Corporate-wide Real-Time Key Performance Indicators; Comparative Analyses around Products, Lots, Batches, Equipment or Locations; OEE: Overall Equipment Effectiveness; Energy and Raw Material Usage Management; Condition Based Maintenance and a host of others.